

- 1 -- 36. A wall designed to resist lateral forces imposed on a building  
incorporating said wall, said building having an underlying structural  
component supporting said wall, said wall comprising:
- 5 a. a bottom plate resting on said underlying structural component of  
said building;
- b. a foundation anchor for connecting said bottom plate to said  
underlying structural component of said building;
- c. a plurality of vertically-disposed studs resting on said bottom plate;
- 10 d. nails for connecting said plurality of vertically-disposed studs to  
said bottom plate;
- e. a top plate resting on said vertically-disposed studs;
- f. nails for connecting said top plate to said vertically-disposed studs;
- 15 g. a shear-resisting assembly connected to said top plate and also  
connected to said underlying structural component and disposed  
between said top plate and said underlying structural component, said  
shear-resisting assembly including,
1. a planar shear-resisting element, said planar shear-resisting  
element having a proximal face and a distal face, a top edge, a  
bottom edge and first and second side edges, said
- 20 shear-resisting assembly also including,
2. a top strut connected to said proximal face near said top  
edge of said shear-resisting element, and disposed substantially  
parallel to said top plate of said wall,
3. a bottom strut connected to said proximal face near said
- 25 bottom edge of said shear-resisting element,
4. a first chord connected to said proximal face near said first  
side edge of said shear-resisting element,
5. a second chord connected to said proximal face near said  
second side edge of said shear-resisting element, and
- 30 6. nails for connecting said top strut, said bottom strut, said  
first chord and said second chord to said shear-resisting  
element,
- said top and bottom struts and said first and second chords forming a  
supporting frame for said shear-resisting element;
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- 1 h. top plate fasteners, having a threaded shank portion, for  
connecting said shear-resisting assembly to said top plate of said wall;  
and  
i. one or more foundation anchors for connecting said shear-resisting  
5 assembly to said underlying structural component of said building. --

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~~-- 37 --~~ A wall designed to resist lateral forces imposed on a building  
incorporating said wall, said building having an underlying structural  
component supporting said wall, said wall comprising:

- <sup>for</sup>  
C 10 a. a bottom plate resting on said underlying structural component of  
said building;  
b. means for connecting said bottom plate to said underlying structural  
component of said building;  
c. a plurality of vertically-disposed studs resting on said bottom plate;  
15 d. means for connecting said plurality of vertically-disposed studs to  
said bottom plate;  
e. a top plate resting on said vertically-disposed studs;  
f. means for connecting said top plate to said vertically-disposed  
studs;  
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C 20 g. a shear-resisting assembly connected to said top plate and also  
<sup>for connecting</sup> connected to said underlying structural component and disposed  
<sup>for being</sup> between said top plate and said underlying structural component, said  
shear-resisting assembly including,  
25 1. a planar shear-resisting element, said planar shear-resisting  
element having a proximal face and a distal face, a top edge, a  
bottom edge and first and second side edges, said  
shear-resisting assembly also including,  
30 2. a top strut connected to said proximal face near said top  
edge of said shear-resisting element, and disposed substantially  
parallel to said top plate of said wall,  
3. a bottom strut connected to said proximal face near said  
bottom edge of said shear-resisting element,  
4. a first chord connected to said proximal face near said first  
side edge of said shear-resisting element,  
35 5. a second chord connected to said proximal face near said  
second side edge of said shear-resisting element, and

1           6. means for connecting said top strut, said bottom strut, said  
             first chord and said second chord to said shear-resisting  
             element,  
             said top and bottom struts and said first and second chords forming a  
 5           supporting frame for said shear-resisting element;  
             h. means for connecting said shear-resisting assembly to said top  
             plate of said wall; and  
             i. a foundation anchor for connecting said shear-resisting assembly to  
 10           said underlying structural component of said building, said foundation  
             anchor being designed to transmit lateral forces imposed on said  
             underlying structural component to said shear-resisting assembly, and  
             wherein said bottom strut is formed with an opening through which  
             said foundation anchor passes, and said opening in said bottom strut is  
             a notch in said bottom strut that allows said bottom strut to slide into  
 15           place. --

*B1*  
*Crut*  
 -- 38<sup>3</sup>. The wall of claim 37<sup>2</sup>, further comprising:  
             epoxy within said opening in said bottom strut to ensure close contact  
             between said foundation anchor and said bottom strut. --

20           -- 39<sup>4</sup>. A wall designed to resist lateral forces imposed on a building  
             incorporating said wall, said building having an underlying structural  
             component supporting said wall, said wall comprising:  
             a. a bottom plate<sup>for</sup> resting on said underlying structural component of  
 25           said building;  
             b. means for connecting said bottom plate to said underlying  
             structural component of said building;  
             c. a plurality of vertically-disposed studs resting on said bottom plate;  
             d. means for connecting said plurality of vertically-disposed studs to  
 30           said bottom plate;  
             e. a top plate resting on said vertically-disposed studs;  
             f. means for connecting said top plate to said vertically-disposed  
             studs;  
             g. a shear-resisting assembly connected to said top plate and also  
 35           <sup>for connecting</sup> connected to said underlying structural component and <sup>for being</sup> disposed

1 between said top plate and said underlying structural component, said shear-resisting assembly including,

5 1. a planar shear-resisting element, said planar shear-resisting element having a proximal face and a distal face, a top edge, a bottom edge and first and second side edges, said shear-resisting assembly also including,

2. a top strut connected to said proximal face near said top edge of said shear-resisting element, and disposed substantially parallel to said top plate of said wall,

10 3. a bottom strut connected to said proximal face near said bottom edge of said shear-resisting element,

4. a first chord connected to said proximal face near said first side edge of said shear-resisting element,

5. a second chord connected to said proximal face near said second side edge of said shear-resisting element, and

6. means for connecting said top strut, said bottom strut, said first chord and said second chord to said shear-resisting element,

20 said top and bottom struts and said first and second chords forming a supporting frame for said shear-resisting element;

h. means for connecting said shear-resisting assembly to said top plate of said wall;

i. means for connecting said shear-resisting assembly to said underlying structural component of said building;

25 j. first and second anchor bolts <sup>for anchoring</sup> that are anchored to said underlying structural component and are disposed near said first and second chords;

k. first and second holdowns that receive said first and second anchor bolts;

30 l. nuts that are fitted on said first and second anchor bolts and engage said first and second holdowns;

m. means for connecting said first and second holdowns to said first and second chords, and wherein;

35 n. said bottom strut is formed with anchor bolt openings through which said first and second anchor bolts pass, said anchor bolt openings in said bottom strut being notches in said bottom strut that

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Amid

C 25

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1 allow said bottom strut to slide into place, and are oversized to accommodate mis-installation of said first and second anchor bolts in said underlying structural component. --

5 ~~--40~~<sup>5</sup> The wall of claim 30<sup>4</sup>, wherein:

- a. said first and second holdowns are formed with slotted openings that are oriented in the same direction as, and are in general alignment with, said notches in said bottom strut, when said first and second holdowns are attached to said first and second chords, said slotted openings receiving said first and second anchor bolts; and
- 10 b. said first and second holdowns are formed with portals to allow said shear-resisting assembly to be slid into place. --

<sup>6</sup>  
-- 41. A wall designed to resist lateral forces imposed on a building incorporating said wall, said building having an underlying structural component supporting said wall, said wall comprising:

- <sup>c</sup> a. a bottom plate <sup>for</sup> resting on said underlying structural component of said building;
- <sup>B/C</sup> b. means for connecting said bottom plate to said underlying structural component of said building;
- 20 c. a plurality of vertically-disposed studs resting on said bottom plate;
- d. means for connecting said plurality of vertically-disposed studs to said bottom plate;
- e. a top plate resting on said vertically-disposed studs;
- 25 f. means for connecting said top plate to said vertically-disposed studs;
- <sup>C</sup> g. a shear-resisting assembly connected to said top plate and also <sup>for connecting</sup> connected to said underlying structural component and <sup>for resisting</sup> disposed between said top plate and said underlying structural component, said shear-resisting assembly including,
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1. a planar shear-resisting element, said planar shear-resisting element having a proximal face and a distal face, a top edge, a bottom edge and first and second side edges, said shear-resisting assembly also including,
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- 1                    2. a top strut connected to said proximal face near said top  
edge of said shear-resisting element, and disposed substantially  
parallel to said top plate of said wall,  
3. a bottom strut connected to said proximal face near said  
5                    bottom edge of said shear-resisting element,  
4. a first chord connected to said proximal face near said first  
side edge of said shear-resisting element,  
5. a second chord connected to said proximal face near said  
second side edge of said shear-resisting element, and  
10                   6. means for connecting said top strut, said bottom strut, said  
first chord and said second chord to said shear-resisting  
element,

said top and bottom struts and said first and second chords forming a  
supporting frame for said shear-resisting element;

- 15                   h. means for connecting said shear-resisting assembly to said top  
plate of said wall;  
i. means for connecting said shear-resisting assembly to said  
underlying structural component of said building;  
j. first and second anchor bolts <sup>for anchoring</sup> ~~that are anchored to~~ said underlying  
20                   structural component and are disposed near said first and second  
chords;  
k. first and second holdowns that receive said first and second anchor  
bolts;  
l. nuts that are fitted on said first and second anchor bolts and engage  
25                   said first and second holdowns;  
m. holdown fasteners, having a threaded shank portion, for  
connecting said first and second holdowns to said first and second  
chords, and wherein;  
n. said bottom strut is formed with anchor bolt openings through  
30                   which said first and second anchor bolts pass. --

*B1 C*  
*Amended*  
-- 42. <sup>7</sup> ~~41~~ The wall of claim <sup>6</sup> ~~41~~, wherein:  
said threaded holdown fasteners are inserted only a selected distance  
into said first and second chords without passing all the way through  
35                   said first and second chords. --

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- 1 -- 43. A wall designed to resist lateral forces imposed on a building  
incorporating said wall, said building having an underlying structural  
component supporting said wall, said wall comprising:
- 5 a. a bottom plate resting on said underlying structural component of  
said building;
- b. means for connecting said bottom plate to said underlying  
structural component of said building;
- c. a plurality of vertically-disposed studs resting on said bottom plate;
- 10 d. means for connecting said plurality of vertically-disposed studs to  
said bottom plate;
- e. a top plate resting on said vertically-disposed studs;
- f. means for connecting said top plate to said vertically-disposed  
studs;
- 15 g. a shear-resisting assembly connected to said top plate and also  
connected to said underlying structural component and disposed  
between said top plate and said underlying structural component, said  
shear-resisting assembly including,
- 20 1. a planar shear-resisting element, said planar shear-resisting  
element having a proximal face and a distal face, a top edge, a  
bottom edge and first and second side edges, said  
shear-resisting assembly also including,
2. a top strut connected to said proximal face near said top  
edge of said shear-resisting element, and disposed substantially  
parallel to said top plate of said wall,
- 25 3. a bottom strut connected to said proximal face near said  
bottom edge of said shear-resisting element,
4. a first chord connected to said proximal face near said first  
side edge of said shear-resisting element,
- 30 5. a second chord connected to said proximal face near said  
second side edge of said shear-resisting element, and
6. edge fasteners, having shank portions, for connecting said  
top strut, said bottom strut, said first chord and said second  
chord to said shear-resisting element,
- 35 said top and bottom struts and said first and second chords forming a  
supporting frame for said shear-resisting element;

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- 1 h. means for connecting said shear-resisting assembly to said top  
plate of said wall;  
i. means for connecting said shear-resisting assembly to said  
underlying structural component of said building; and  
5 j. boundary edging members disposed on said shear-resisting element  
at said top and bottom edges and said first and second side edges that  
are pierced by said shank portions of said edge fasteners and thereby  
strengthen the connection made by said edge fasteners, and wherein  
said boundary edging members are u-shaped channels, having a pair of  
10 legs joined by a central member that embrace said shear-resisting  
element, each of said edge fasteners passing through each of said legs  
of said u-shaped channels. --

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-- 44. A wall designed to resist lateral forces imposed on a building  
15 incorporating said wall, said building having an underlying structural  
component supporting said wall, said wall comprising:

- a. a bottom plate resting on said underlying structural component of  
said building;  
b. means for connecting said bottom plate to said underlying  
structural component of said building;  
c. a plurality of vertically-disposed studs resting on said bottom plate;  
d. means for connecting said plurality of vertically-disposed studs to  
said bottom plate;  
e. a top plate resting on said vertically-disposed studs;  
25 f. means for connecting said top plate to said vertically-disposed  
studs;  
g. a shear-resisting assembly connected to said top plate and also  
connected to said underlying structural component and disposed  
between said top plate and said underlying structural component, said  
30 shear-resisting assembly including,  
1. a planar shear-resisting element, said planar shear-resisting  
element having a proximal face and a distal face, a top edge, a  
bottom edge and first and second side edges, said  
shear-resisting assembly also including,

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- 1 2. a top strut connected to said proximal face near said top edge of said shear-resisting element, and disposed substantially parallel to said top plate of said wall,
- 5 3. a bottom strut connected to said proximal face near said bottom edge of said shear-resisting element,
4. a first chord connected to said proximal face near said first side edge of said shear-resisting element,
5. a second chord connected to said proximal face near said second side edge of said shear-resisting element, each of said first and second chords of said shear-resisting assembly being formed from two elongated wood members, laminated together, and
- 10 6. means for connecting said top strut, said bottom strut, said first chord and said second chord to said shear-resisting element,
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said top and bottom struts and said first and second chords forming a supporting frame for said shear-resisting element;

h. means for connecting said shear-resisting assembly to said top plate of said wall; and

i. means for connecting said shear-resisting assembly to said underlying structural component of said building. --

-- 46. A wall designed to resist lateral forces imposed on a building incorporating said wall, said building having an underlying structural

25 component supporting said wall, said wall comprising:

a. a bottom plate resting on said underlying structural component of said building;

b. means for connecting said bottom plate to said underlying structural component of said building;

30 c. a plurality of vertically-disposed studs resting on said bottom plate;

d. means for connecting said plurality of vertically-disposed studs to said bottom plate;

e. a top plate resting on said vertically-disposed studs;

35 f. means for connecting said top plate to said vertically-disposed studs;

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1 g. a shear-resisting assembly connected to said top plate and also  
 for connecting connected to said underlying structural component and disposed for connecting  
 between said top plate and said underlying structural component, said  
 shear-resisting assembly including,

- 5 1. a planar shear-resisting element, said planar shear-resisting  
 element having a proximal face and a distal face, a top edge, a  
 bottom edge and first and second side edges, said  
 shear-resisting element comprising a plurality of adjoining  
 structural panels disposed in a single plane, forming joints  
 10 between said structural panels, said shear-resisting assembly  
 also including,  
 2. a top strut connected to said proximal face near said top  
 edge of said shear-resisting element, and disposed substantially  
 parallel to said top plate of said wall,  
 15 3. a bottom strut connected to said proximal face near said  
 bottom edge of said shear-resisting element,  
 4. a first chord connected to said proximal face near said first  
 side edge of said shear-resisting element,  
 5. a second chord connected to said proximal face near said  
 second side edge of said shear-resisting element, and  
 20 6. means for connecting said top strut, said bottom strut, said  
 first chord and said second chord to said shear-resisting  
 element,

25 said top and bottom struts and said first and second chords forming a  
 supporting frame for said shear-resisting element;

h. means for connecting said shear-resisting assembly to said top  
 plate of said wall; and

i. means for connecting said shear-resisting assembly to said  
 underlying structural component of said building. --

30 ~~46~~ 11 The wall of claim ~~46~~ 10, wherein said shear-resisting assembly further  
 comprises:

- 35 a. intermediate studs disposed between said top and bottom struts of  
 said shear-resisting element;  
 b. means for connecting said intermediate studs to said top and  
 bottom struts;

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1 c. means for connecting said intermediate studs to said structural panels; and

wherein selected intermediate studs are disposed at said joints of said structural panels, serving to connect said structural panels together. --

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~~47~~. A wall designed to resist lateral forces imposed on a building incorporating said wall, said building having an underlying structural component supporting said wall, said wall comprising:

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a. a bottom plate resting on said underlying structural component of said building;

b. means for connecting said bottom plate to said underlying structural component of said building;

c. a plurality of vertically-disposed studs resting on said bottom plate;

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d. means for connecting said plurality of vertically-disposed studs to said bottom plate;

e. a top plate resting on said vertically-disposed studs;

f. means for connecting said top plate to said vertically-disposed studs;

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*for connecting*  
g. a shear-resisting assembly connected to said top plate and also connected to said underlying structural component and disposed between said top plate and said underlying structural component, said shear-resisting assembly including,

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1. a planar shear-resisting element, said planar shear-resisting element having a proximal face and a distal face, a top edge, a bottom edge and first and second side edges, said shear-resisting assembly also including,

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2. a top strut connected to said proximal face near said top edge of said shear-resisting element, and disposed substantially parallel to said top plate of said wall,

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3. a bottom strut connected to said proximal face near said bottom edge of said shear-resisting element,

4. a first chord connected to said proximal face near said first side edge of said shear-resisting element,

5. a second chord connected to said proximal face near said second side edge of said shear-resisting element, and

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1           6. edge fasteners, having shank portions, for connecting said  
top strut, said bottom strut, said first chord and said second  
chord to said shear-resisting element,  
said top and bottom struts and said first and second chords forming a  
5           supporting frame for said shear-resisting element;  
h. means for connecting said shear-resisting assembly to said top  
plate of said wall;  
i. means for connecting said shear-resisting assembly to said  
underlying structural component of said building;  
10          j. boundary edging members disposed on said shear-resisting element  
at said top and bottom edges and said first and second side edges that  
are pierced by said shank portions of said edge fasteners and thereby  
strengthen the connection made by said edge fasteners; and wherein  
k. said means for connecting said shear-resisting assembly to said  
15          underlying structural component is a foundation anchor <sup>for anchoring</sup> anchored to  
said underlying structural component, said foundation anchor being  
designed to transmit lateral forces imposed on said underlying  
structural component to said shear resisting assembly, and said  
bottom strut is formed with an opening through which said foundation  
20          anchor passes, and said opening in said bottom strut is oversized to  
accommodate mis-installation of said foundation anchor in said  
underlying structural component, and epoxy is placed within said  
opening in said bottom strut to ensure close contact between said  
foundation anchor and said bottom strut.

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**REMARKS***Introduction*

By the above amendments, Applicants have canceled all the pending  
claims from the application and added new claims 36 through 47.

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*Drawings*

The examiner objected to the drawings under 37 CFR §1.83(a). The  
examiner required Applicants to either provide a drawing showing a wall with  
a plurality of adjoining structural panels or cancel those features from claims

35 33 and 34.

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